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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,772	01/31/2005	Katsuyuki Funahata	500.44691X00	1670

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EXAMINER

CHUNG, DAVID Y

ART UNIT	PAPER NUMBER
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2871

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/522,772

Applicant(s)

FUNAHATA ET AL.

Examiner

David Y. Chung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 is/are allowed.
- 6) ☒ Claim(s) 9-13 and 15-19 is/are rejected.
- 7) ☒ Claim(s) 14 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

1. Claim 9-13 and 15-19 rejected under 35 U.S.C. 102(a) as being anticipated by Ono et al. (JP 2002-162623).

As to claims 9 and 15, Ono discloses a liquid crystal display device having enhanced transmission efficiency. As shown in figure 2, the pixel area is surrounded by a plurality of gate lines GL and data lines DL, which are orthogonal to each other. The pixel electrode is supplied a video signal from the drain signal line via a thin film transistor. See abstract. As shown in figures 1 and 3, the pixel electrode comprises a transparent conductive layer PX1 and conductive members PX2 having a light reflection function and electrically connected to the transparent conductive layer.

As to claims 10 and 16, Ono discloses reflecting conductive members PX2 that are disposed directly on the transparent conductive layer PX1 in figures 1 and 3.

As to claims 12, 13, 18 and 19, figures 1-3 of Ono show a reflective area in the region where the reflective conductive layer PX2 is disposed, and a transparent area

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where only transparent conductive layer PX1 is disposed. The reflective conductive layer PX2 has a plurality of concave or convex bumps having a continuously changing slope surface.

As to claims 11 and 17, the transparent conductive layer PX1 shown in figures 1 and 3 has a flat plate shape. The opposing substrate, which is not shown, inherently has a common electrode disposed on it in order to apply a voltage to the liquid crystal layer for display. Although a liquid crystal layer is also not shown, this is also an inherent feature of the display disclosed by Ono.

Response to Arguments

Applicant's arguments filed November 27, 2006 have been fully considered but they are not persuasive. Contrary to applicant's argument that the features do not appear to be disclosed by the cited prior art, Ono clearly shows in figures 1 and 2, a transfective display having a flat plate type transparent conductive layer PX1 and conductive members PX2 having a light reflection function and electrically connected to the transparent conductive layer.

Allowable Subject Matter

Claims 1-8 allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art did not teach or suggest conductive members having light reflection

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function disposed on the surface of the transparent conductive layer randomly and dispersively. The disclosure of Yamazaki (U.S. 7,053,969) is not considered prior art due to the filing date being later than the filing date of the current application's PCT application.

Claims 14 and 20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: none of the prior art taught or suggested the convex or concave conductive members made of conductive material mainly consisting of fine particles of gold or silver having a nano order diameter.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Chung whose telephone number is (571) 272-2288. The examiner can normally be reached Monday-Friday 9:30 am to 6:00 pm.


David Nelms
Supervisory Patent Examiner
Technology Center 2800

David Chung
GAU 2871
02/20/07